California High-Speed Rail Authority

RFP No.: HSR 14-32

Request for Proposals for Design-Build Services for Construction Package 4

Reference Material, Part A.2

Standard Drawings

DRAINAGE

DRAWING TYPE	DRAWING NO.	DRAWING TITLE
SD	SD-CD-900	TRACK DRAIN/UNDERDRAIN, CLEANOUT AND RISER DETAILS
SD	SD-CD-901	DITCH DETAILS
SD	SD-CD-902	STORM DRAIN HOLES
SD	SD-CD-903	RETAINING WALL DRAINAGE DETAILS

RFP No.: HSR 14-32 - REVIEW DRAFT

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY R. MINCIO
DRAWN BY V. HUANTE
CHECKED BY H. NGUYEN
IN CHARGE J. CHIRCO
DATE 01/24/2014

PARSONS BRINCKERHOFF

CALIFORNIA HIGH-SPEED RAIL AUTHORITY

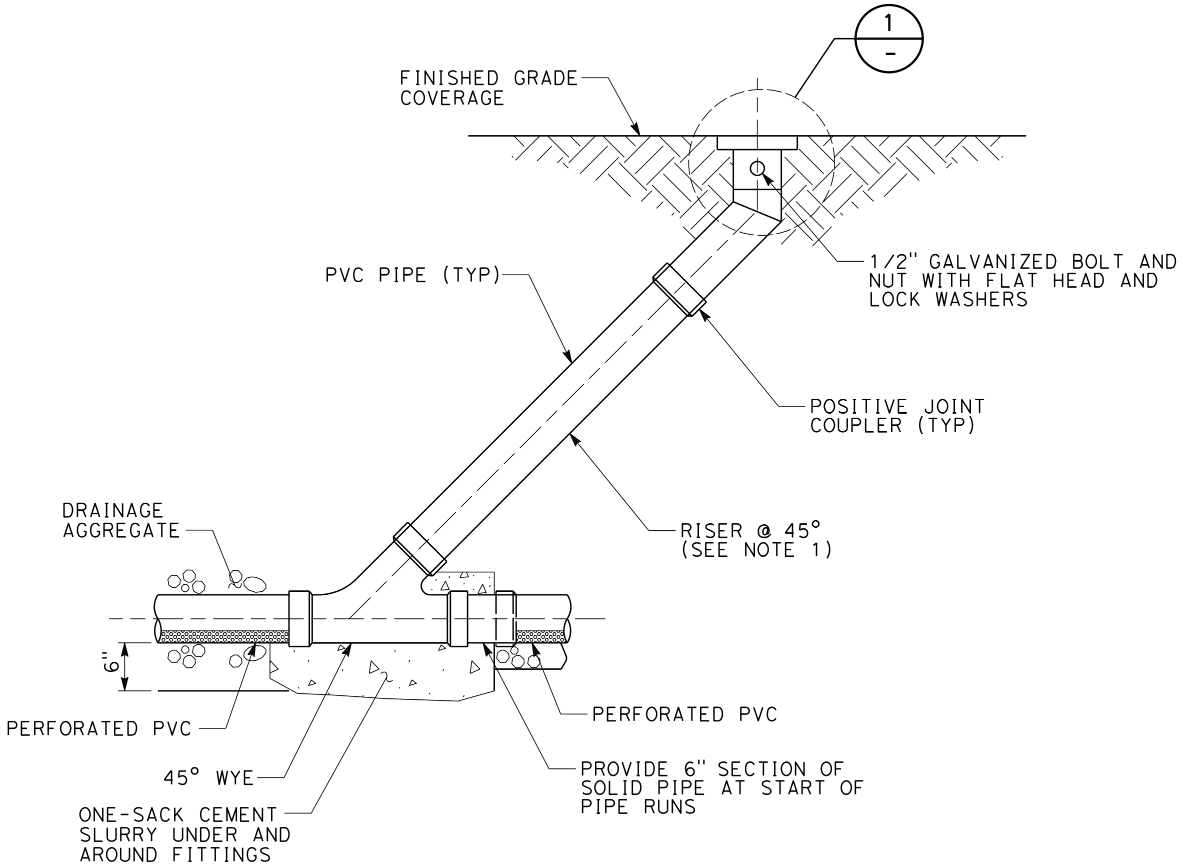
CALIFORNIA HIGH-SPEED TRAIN PROJECT
SIERRA SUBDIVISION

STANDARD DRAWINGS
CONTRACT PACKAGE 2-3
SHEET INDEX

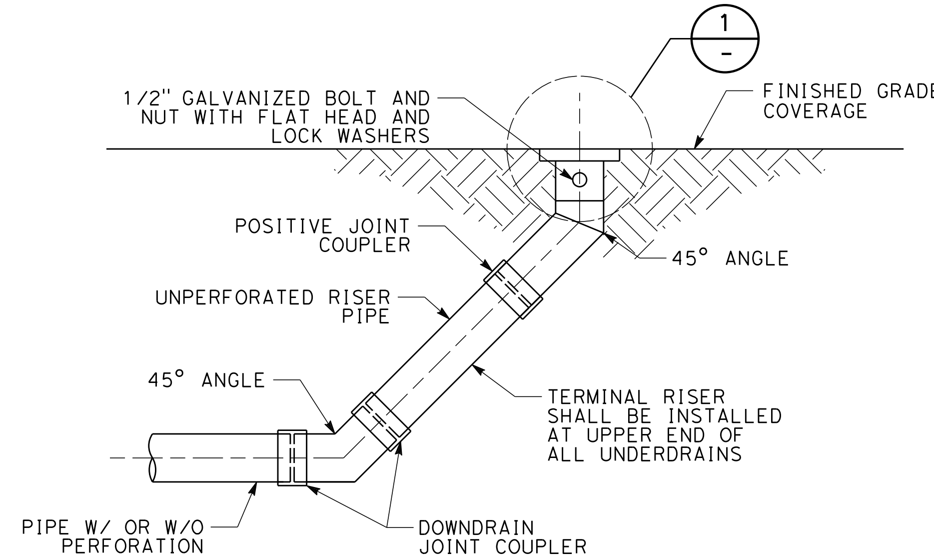
CONTRACT NO.
DRAWING NO. INDEX-2 CP2-3
SCALE NO SCALE
SHEET NO.

NOTES:

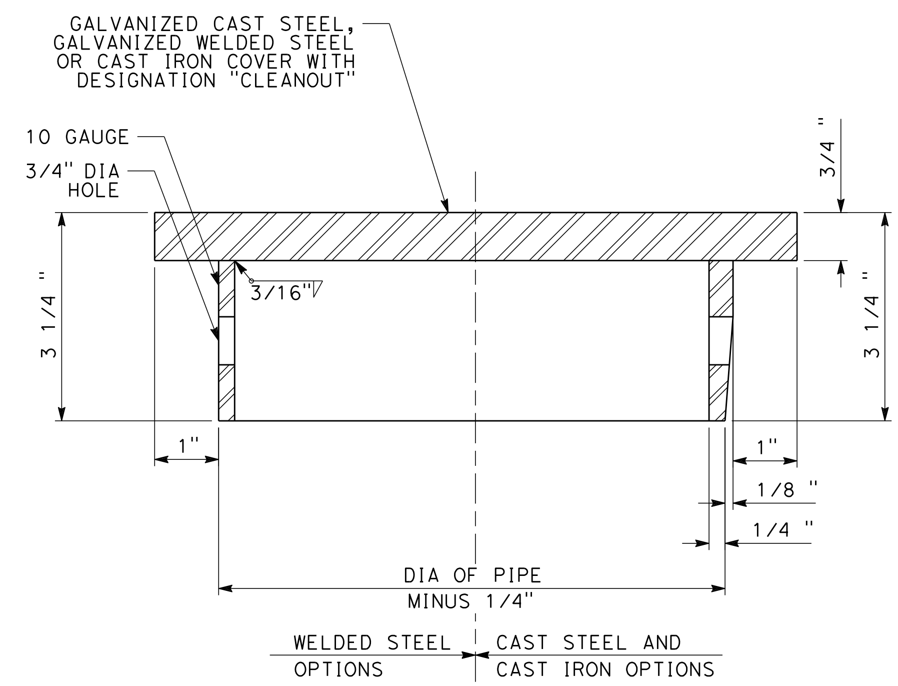
1. RISER MAY BE ANGLED AT 90 DEGREES DUE TO SPACE CONSIDERATIONS.



INTERMEDIATE RISER/CLEANOUT
SCALE: 1"=1'-0"



TERMINAL RISER DETAIL
SCALE: 1"=1'-0"



DETAIL 1/-
SCALE: 8"=1'-0"

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY K. SISTLA
DRAWN BY V. HUANTE
CHECKED BY A. ABTAHI
IN CHARGE J. CHIRCO
DATE 01/24/2014

PARSONS BRINCKERHOFF

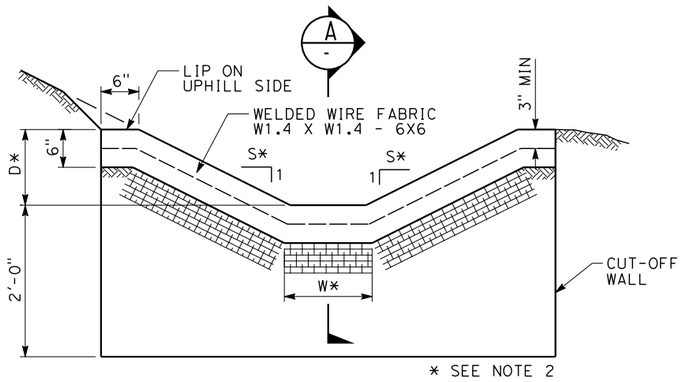
CALIFORNIA HIGH-SPEED RAIL AUTHORITY

CALIFORNIA HIGH-SPEED TRAIN PROJECT
DRAINAGE STANDARD

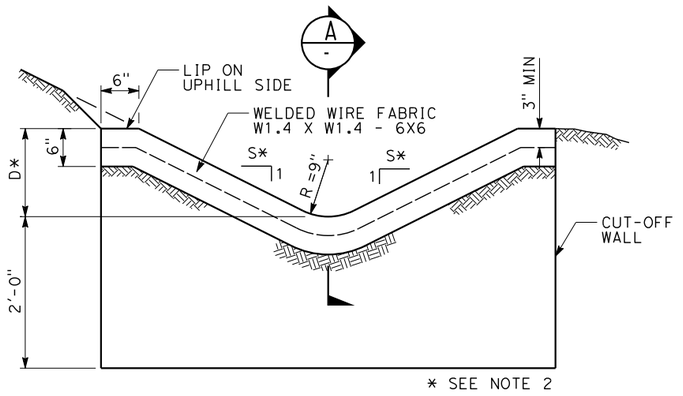
TRACK DRAIN/UNDERDRAIN
CLEANOUT AND RISER DETAILS

CONTRACT NO.
DRAWING NO. SD-CD-900
SCALE AS SHOWN
SHEET NO.

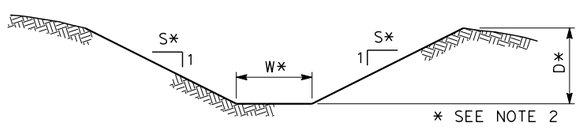
Cheung 1/24/2014 3:38:19 PM CAHSRP.tbl CHSR_half_black.plt ...SD-CD-900.dgn



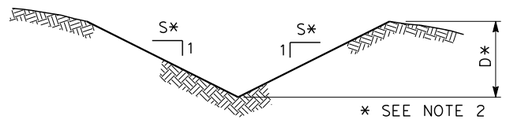
TYPE A (TRAPEZOID) DITCH



TYPE B ("V") DITCH

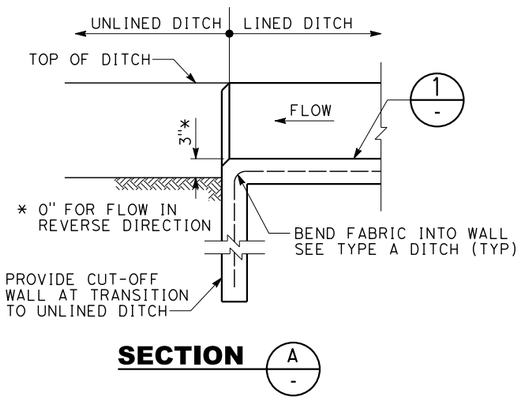


TYPE C (TRAPEZOID) DITCH

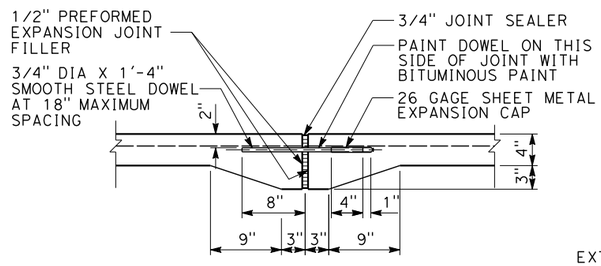


TYPE D ("V") DITCH

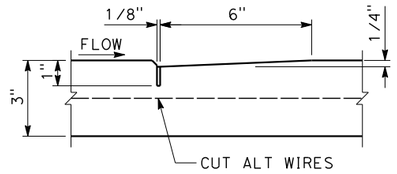
DITCH DETAILS
NO SCALE



SECTION A -



EXPANSION JOINT



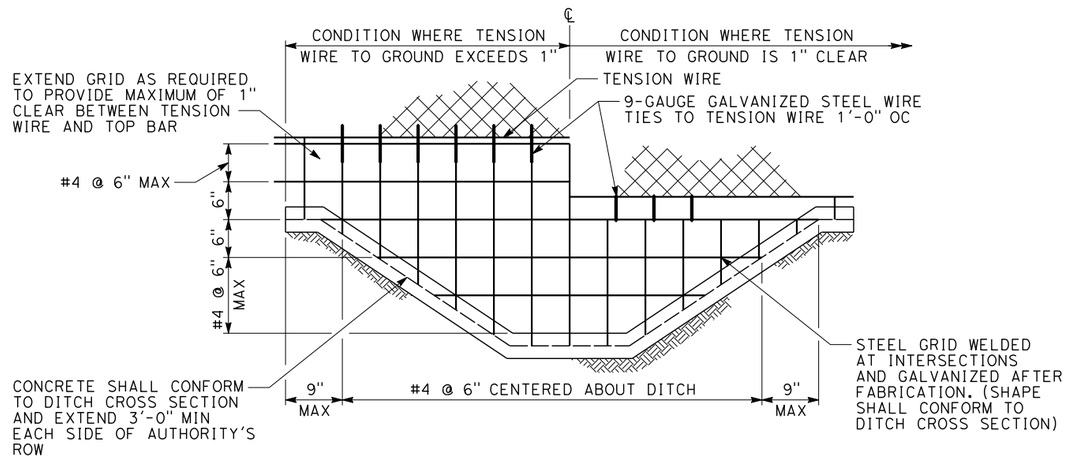
CONTRACTION JOINT

JOINT DETAILS 1 -
NO SCALE
(SEE NOTE 3)

NOTES:

1. DITCH LINING SHALL BE CONCRETE OR SHOTCRETE.
2. DITCH SHALL CONFORM TO THE FOLLOWING MINIMUM DIMENSIONS:

   D = DEPTH OF DITCH, 1 FOOT MINIMUM
   S = SLOPE OF DITCH, SIDES, 2:1 MAX FOR CONCRETE LINED CHANNEL, 3:1 MAX FOR GRASS LINED CHANNEL
   W = WIDTH OF BOTTOM OF DITCH, 4 FEET MINIMUM
3. TYPE A AND B DITCHES SHALL HAVE A CONTRACTION JOINT EVERY 10 FEET, AND AN EXPANSION JOINT EVERY 100 FEET.
4. OPEN CHANNEL CLOSURE SHALL BE REQUIRED AT EACH LOCATION WHERE AN OPEN CHANNEL PASSES UNDER AUTHORITY'S RIGHT-OF-WAY.



OPEN CHANNEL CLOSURE DETAIL
NO SCALE
(SEE NOTE 4)

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IN CHARGE J. CHIRCO
DATE 01/24/2014

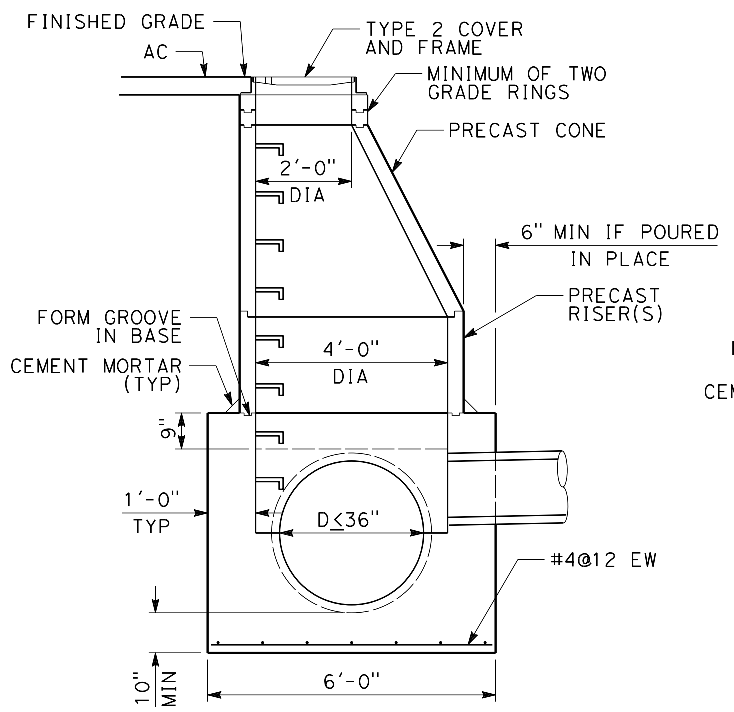
PARSONS BRINCKERHOFF

CALIFORNIA HIGH-SPEED RAIL AUTHORITY

CALIFORNIA HIGH-SPEED TRAIN PROJECT
DRAINAGE STANDARD

DITCH DETAILS

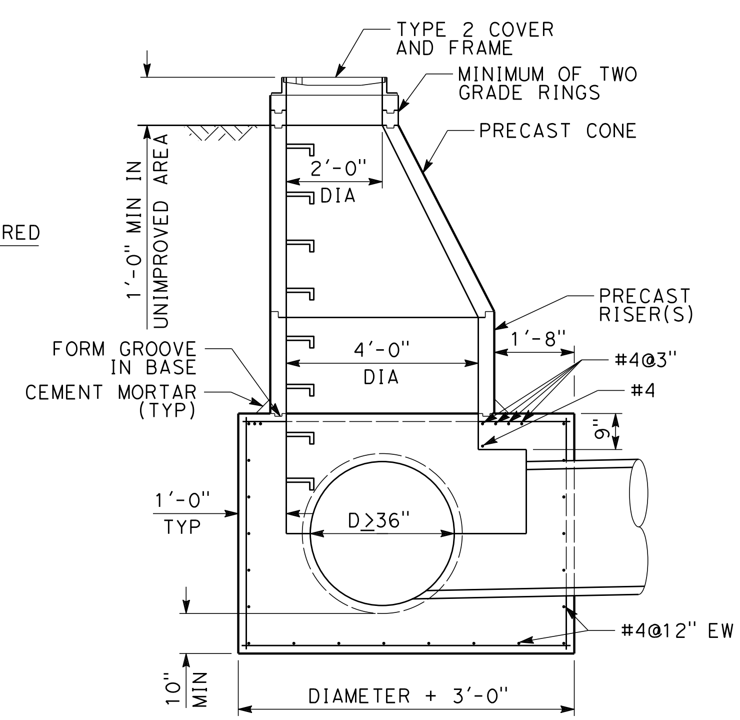
CONTRACT NO.
DRAWING NO. SD-CD-901
SCALE NO SCALE
SHEET NO.



SECTION (A/-)
NO SCALE

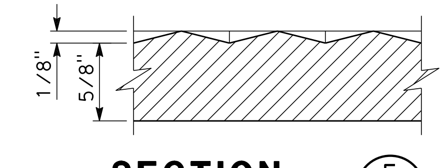
NOTE:
FOR STEP DETAILS, SEE NOTES

MANHOLE FOR
PIPE DIAMETER 36" OR LESS

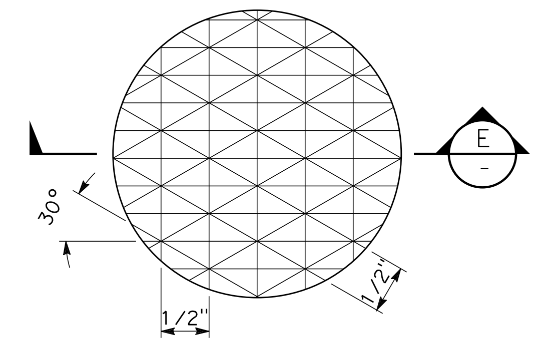


SECTION (B/-)
NO SCALE

MANHOLE FOR
PIPE DIAMETER MORE THAN 36"



SECTION (E/-)
NO SCALE

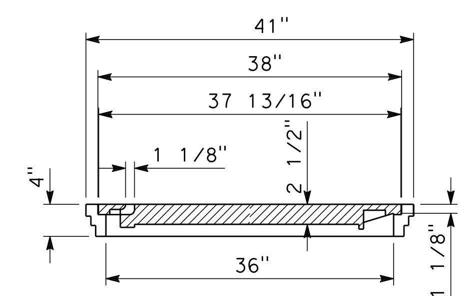


PLAN

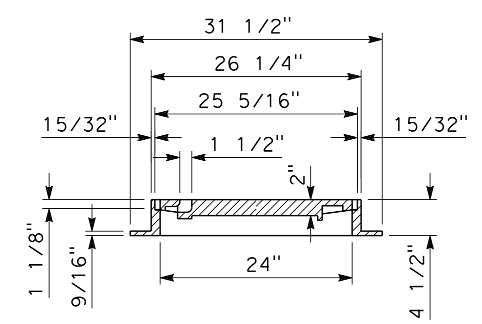
DETAIL (6/-)
NO SCALE

NOTES:

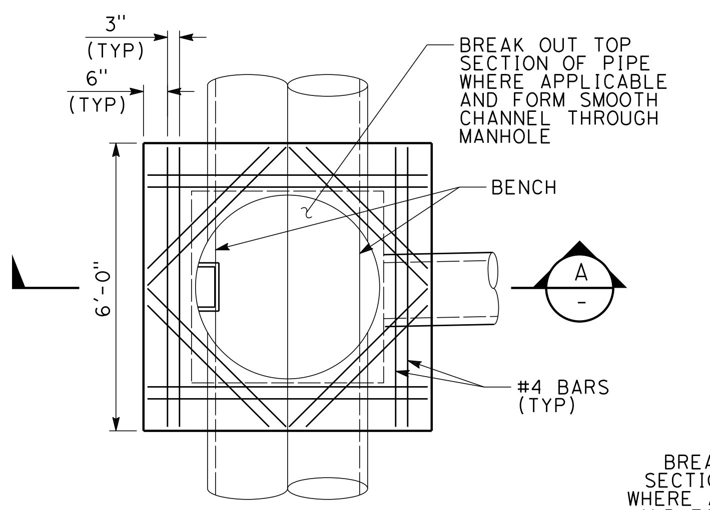
1. GROUT ALL JOINTS.
2. ALL PORTLAND CEMENT CONCRETE SHALL BE CLASS 4000.
3. PLACE STEPS ON DOWNSTREAM SIDE OF MANHOLE IF POSSIBLE.
4. REFER TO CALTRANS STANDARD PLAN FOR STEP DETAILS (D74C).



SECTION (C/-)
NO SCALE

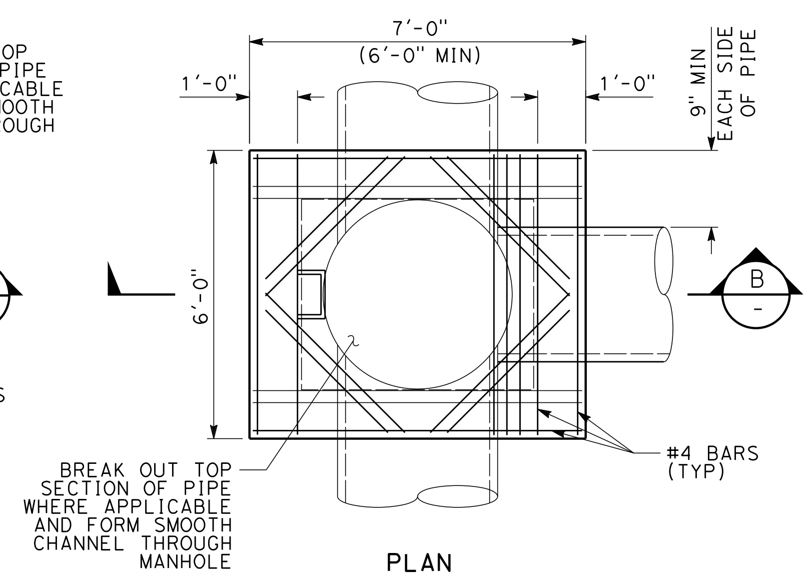


SECTION (D/-)
NO SCALE



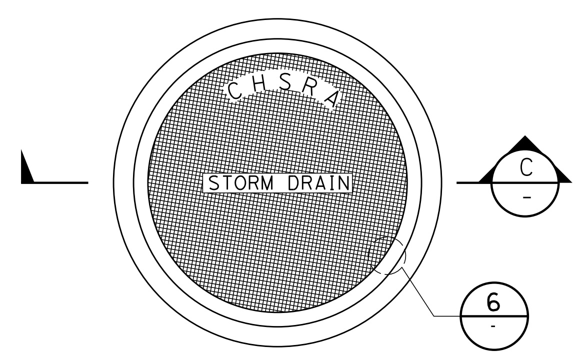
PLAN

DETAIL (1/-)
NO SCALE



PLAN

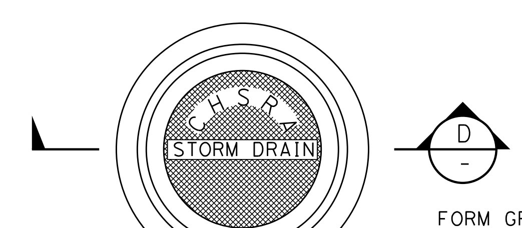
DETAIL (2/-)
NO SCALE



PLAN

TYPE 1 COVER AND FRAME
(WEIGHT=700#)

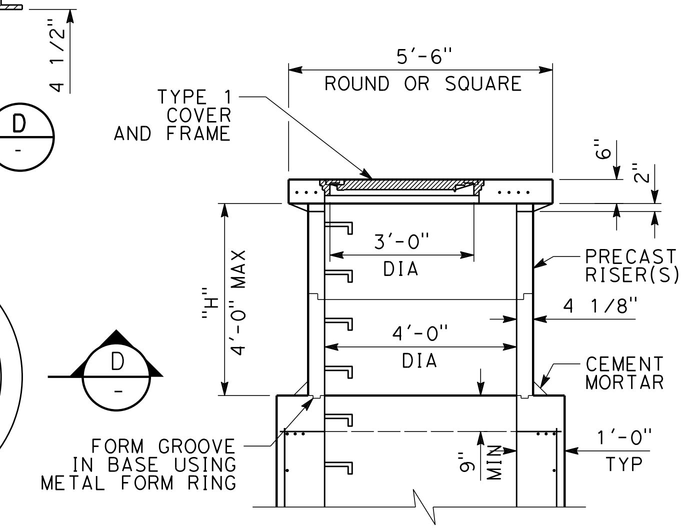
DETAIL (3/-)
NO SCALE



PLAN

TYPE 2 COVER AND FRAME
(WEIGHT=320#)

DETAIL (4/-)
NO SCALE



ALTERNATE CHIMNEY
AND GRADE SLAB

(REQUIRED WHERE "H" IS LESS THAN 4'-0")

DETAIL (5/-)
NO SCALE

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY K. SISTLA
DRAWN BY T. DOUNG
CHECKED BY A. ABTAHI
IN CHARGE J. CHIRCO
DATE 01/24/2014

PARSONS BRINCKERHOFF

CALIFORNIA HIGH-SPEED RAIL AUTHORITY

CALIFORNIA HIGH-SPEED TRAIN PROJECT
DRAINAGE STANDARD

STORM DRAIN MANHOLES

CONTRACT NO.
DRAWING NO. SD-CD-902
SCALE NO SCALE
SHEET NO.

RFP No.: HSR 14-32 - REVIEW DRAFT

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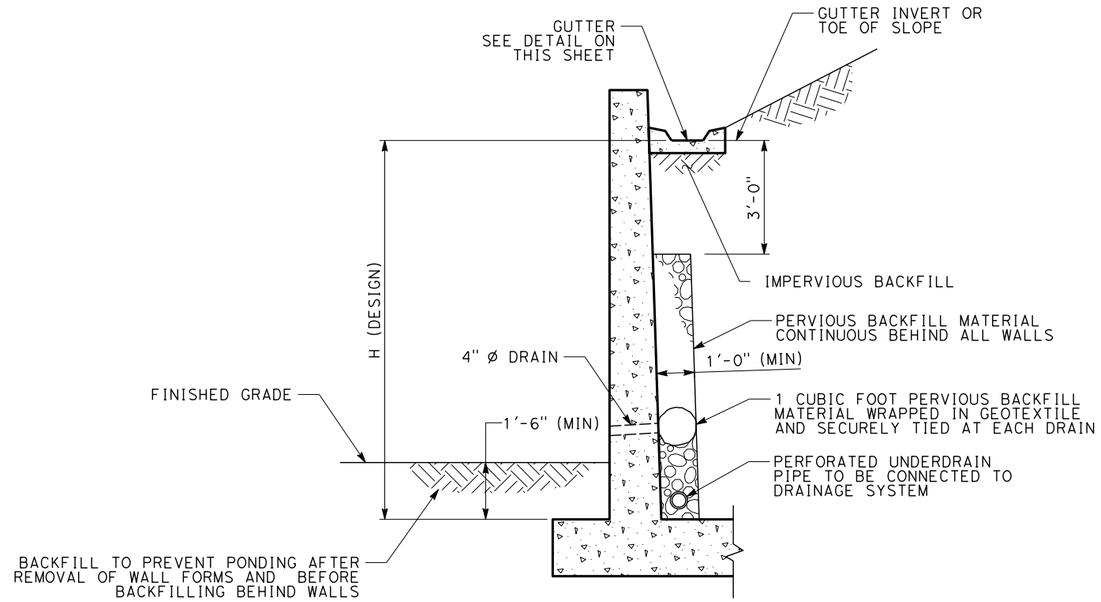
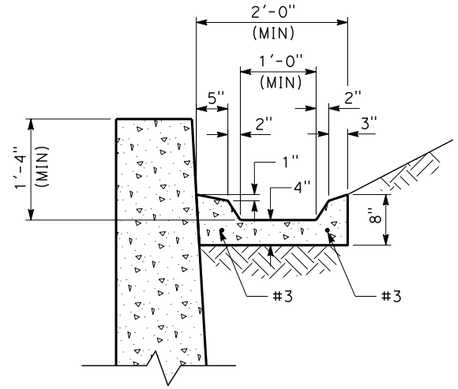
1/24/2014 3:41:25 PM CAHSRP.tbl CHSR_half_black.plt
Cheung

NOTES:

1. RETAINING WALL STRUCTURE IS SCHEMATIC AND DOES NOT REPRESENT DESIGN.



RETAINING WALL DRAINAGE



TYPICAL GUTTER DETAIL

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DATE 01/24/2014

PARSONS BRINCKERHOFF

CALIFORNIA HIGH-SPEED RAIL AUTHORITY

CALIFORNIA HIGH-SPEED TRAIN PROJECT
DRAINAGE STANDARD

RETAINING WALL DRAINAGE DETAILS

CONTRACT NO.
DRAWING NO. SD-CD-903
SCALE NO SCALE
SHEET NO.